AMENDMENTS TO THE CLAIMS:

Please cancel Claims 17, 31 and 33. Please amend Claim 39. This listing of claims replaces all prior versions, and listings of claims, in the application.

LISTING OF CLAIMS:

1-17. (Cancelled)

18. (Previously Presented) A method for monitoring the delivery of a nucleic acid molecule into a cell comprising:

(a) labeling the nucleic acid molecule;

(b) delivering the labeled nucleic acid molecule into a cell; and

(c) detecting the labeled nucleic acid molecule in the cell by flow cytometry, fluorimetry, cell imaging or fluorescence spectroscopy, as an indication of delivery of nucleic acid molecule into the cells, wherein the nucleic acid molecule is labeled with a thymidine analog.

19. (Original) The method of claim 18, wherein the thymidine analog is iododeoxyuridine or bromodeoxyuridine.

20. (Original) The method of claim 19, wherein a delivery agent comprises a cationic compound, and the nucleic acid molecule is treated therewith.

21. (Previously Presented) The method of claim 20, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4C{\bullet}4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2C{\bullet}4CF_3CO_2H$, $C_{40}H_{84}NO_3P{\bullet}CF_3CO_2H$, $C_{50}H_{103}N_7O_3{\bullet}4CF_3CO_2H$, $C_{55}H_{116}N_8O_2C_6{\bullet}CF_3CO_2H$, $C_{49}H_{102}N_6O_3C{\bullet}4CF_3CO_2H$, $C_{44}H_{89}N_5O_3C{\bullet}2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{206}N_{12}O_4S_2{\bullet}8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9{\bullet}13CF_3CO_2H$, $C_{43}H_{88}N_4O_2{\bullet}2CF_3CO_2H$, $C_{43}H_{88}N_4O_3{\bullet}2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

22. (Previously Presented) The method of claim 18, wherein the nucleic acid molecule is a naked DNA molecule that is greater than about 0.6 megabases in size, a natural chromosome, an artificial chromosome or a fragment of a chromosome that is greater than about 0.6 megabases in size.

23. – 34. (Cancelled)

35. (Previously Presented) The method of claim 22, wherein the nucleic acid molecule is labeled with a thymidine analog.

36. (Previously Presented) The method of claim 35, wherein the thymidine analog is iododeoxyuridine or bromodeoxyuridine.

37. (Previously Presented) The method of claim 36, wherein a delivery agent comprises a cationic compound, and the nucleic acid molecule is treated therewith.

38. (Previously Presented) The method of claim 37, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4C•4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2C•4CF_3CO_2H$, $C_{40}H_{84}NO_3P•CF_3CO_2H$, $C_{50}H_{103}N_7O_3•4CF_3CO_2H$, $C_{55}H_{116}N_8O_2C_6•CF_3CO_2H$, $C_{49}H_{102}N_6O_3C•4CF_3CO_2H$, $C_{44}H_{89}N_5O_3C•2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{206}N_{12}O_4S_2•8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9•13CF_3CO_2H$, $C_{43}H_{88}N_4O_2•2CF_3CO_2H$, $C_{43}H_{88}N_4O_3•2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

39. (Currently Amended) A method for monitoring the delivery of a large nucleic acid molecule into a cell, comprising:

(a) labeling the large nucleic acid molecule; then

(b) delivering the labeled large nucleic acid molecule into a cell; and

(c) detecting the labeled large nucleic acid molecule in the cell by flow cytometry, fluorimetry, cell imaging or fluorescence spectroscopy, as an indication of delivery of the nucleic acid molecule into the cells, wherein the nucleic acid molecule is a naked DNA that is greater than about 0.6 megabases in size, a natural chromosome, an artificial chromosome or a fragment of a chromosome that is greater than about 0.6 megabases in size.

40. (Previously Presented) The method of claim 18, wherein the cell is selected from the group consisting of a primary cell, an immortalized cell, an embryonic cell, a stem cell, a transformed cells and a tumor cell.

41. (Previously Presented) The method of claim 18, further comprising:

(d) determining the number of cells containing the label.